



X-Plain™ *Mammography* **Reference Summary**

Mammography is a test that allows the doctor to look at images of the inside of the breasts. Mammograms help detect breast cancer early. Successful treatment of breast cancer depends on that early diagnosis. This reference summary will help you better understand the benefits and limitations of mammography.

Breast Cancer

Breast cancer is a very common condition. About one in every nine women develops breast cancer by the age of 80.

The body is made up of very small cells. Normal cells in the body grow and die in a controlled way. Cancer occurs when cells keep dividing and growing without normal control. Cancer cells may also spread to different parts of the body through blood vessels and lymph channels.

Cancers in the body are given names depending on where the cancer started. Cancer that begins in the breast will always be called a breast cancer, even if it spreads to another place such as the liver, bone, or brain.

Breast cancer may form lumps. At an advanced stage of the cancer, the lump may be felt by hand. This is called breast self-examination.



The earlier breast cancer is detected, the better the chances are for successful treatment and even a cure.

Mammogram

A mammogram is an x-ray of the breast. Low doses of x-ray are used. The radiologist, a doctor who specializes in reading x-ray images, can identify differences between a normal breast and one that may show signs of cancer.

Mammograms can be used to diagnose bumps and lumps felt by the patient or the doctor. These kinds of mammograms are called diagnostic mammograms. Mammograms can also



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be used to find cancer that cannot be felt in a breast examination. This kind of mammogram is called a screening mammogram.

Procedure

The breasts and underarm areas should be cleaned before a mammogram. No lotions, creams, or deodorants should be put on these areas because they may look unusual on the x-ray image. Right before a mammogram, the patient will be asked to take off all jewelry and clothing above the waist, and then cover up with a gown that opens in the front.

During a mammogram, a radiologic technologist will position the patient and image the breasts. A radiologic technologist is a healthcare provider that specializes in taking and developing images.

To take the x-ray images of the breasts, each one is separately pressed between two plates. This is called breast compression.

Breast compression is necessary for a variety of reasons. It allows the radiologic technologist to take an image of all of the breast tissue. It also holds the breast still and lets a lower dose of x-ray be used.

A mammogram is not painful but may be uncomfortable while the breast is being pressed between the plates.



Women that have sensitive breasts can schedule the mammogram when their breasts are the least tender. This is usually one week after a period. The radiologic technologist will go behind a glass shield while taking the x-ray image. Mammography for both breasts should take a total of about half an hour.

When the mammogram is done, the radiologic technologist will ask the patient to wait until the images have been looked over by a radiologist, to find out whether more are needed. If the images look acceptable, the patient is able to leave.

Results

Sometimes the results of a mammogram are given directly to the patient and other times the results are given to their doctor. You can ask a nurse when you should expect to find out the results of your mammogram.

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A normal mammogram usually means that there were no obvious signs of breast cancer at the time the mammogram was done.

An abnormal result does not always mean that there is cancer. Many different types of cysts or unusual areas of the breast may appear on a mammogram.

If there is a possibility of cancer, your doctor may recommend a biopsy.

During a biopsy procedure, a small needle is inserted into the lump or lesion that was found from the mammogram and a piece of tissue is taken. The tissue sample is then sent to a lab to find out whether it is cancerous.

Screening Mammograms

Most doctors recommend that a woman have her first mammogram at the age of 40. They should be continued once a year or once every two years until the age of 49. After age 50, she should have a mammogram every year. Mammograms should be started earlier and done more often if a patient has a strong family history of breast cancer or has already been diagnosed with breast cancer.

Limitations

Mammograms are very safe.

Unborn children should not be exposed to x-rays. This is why it is very important to tell your doctor if there is any possibility that you might be pregnant. Blood and urine tests can be done to make sure you are not pregnant.

It is possible for a mammogram to look normal even though breast cancer is actually present. This is more common in younger women than in older women. Since younger women's breasts have denser tissue, it is harder to find abnormal spots on the images. It is also possible for a mammogram to look abnormal when there is actually no cancer. Additional testing will determine if the abnormality in the image is really due to breast cancer or not.

Summary

A mammogram is a very safe test that is tolerated well by patients. Mammography can save lives since it helps find cancer one to two years before cancer may be felt by breast self-examination. It can also help to diagnose any lumps a patient feels in the breast.

The earlier the breast cancer is detected, the higher the chances are for a successful treatment and a cure.

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